Electronic Logbook (Elog) Requirements

19-June-2002

Architecture:
- Entries (text, images, video, etc.) stored in an Elog Oracle database for easy integration with GURD or Equipment Tracking, or Facilities Management databases to provide access to machine data or spare parts information, Work Orders, etc.
- Elog securely accessible via the web and
  - Allow both read and write privileges from within the ORNL and ICS Network.
  - Allow read privilege only (via password protection) from outside ORNL and ICS network.
  - Not interfere with the use of VPN to securely connect to the ORNL network from outside.

Format:
- Easy Web interface, with user-friendly layout – toolbars, menus, tabbed panes for different configurations, etc.
- Read and Write capability from the web, i.e. no client programs to download and thus software versions to keep up to date.
- Password protection, with separate passwords for individuals and groups.
- Individual login with customizable Home page
  - Defaults to previously specified "Configuration" of logbook, other configurations selectable by tabbed pane.
  - Ability to bookmark threaded discussions
  - Automatic signing of entries
- Group login (e.g. for control room operation)
  - Prompted signing of entries
- Different "Configurations" of Elog Notebooks for different groups, e.g. Operations, Diagnostics, RF, etc.
- Links to other useful web pages from main page

Entry:
- Automatic timestamp and dating of Elog entries (with user selectable format, e.g. 24 hour/AM-PM clock, European/American date, etc.).
- Enter EPICS EDM screen snapshots into an Elog entry (on demand).
- Enter output of application programs into an Elog entry (on demand).
- Automatic entries from external processes.
- Make inline images within an entry, use file extension to determine mime type, and provide a popup menu of supported file types if the extension is not recognized.
- Attach other files (MS Office, Adobe pdf, etc.) to an entry, and store a copy in the Elog Oracle database (so that it doesn't disappear or change location).

- Allow specification of type of entry (via pick-list), e.g. Repair, Operations Note. Beam loss report, etc.
- Allow specification of one or more Categories/Sub-categories for the entry (via pick-lists), e.g. RF/HVCM, RF/LLRF, Cryogenics/Refrigerator, Ion Source/Antenna, etc.
- Support styled text entry in addition to plan text
- Input Equations – use MATHML
- Sketch ability – drawing tablet input
- Easily selectable Forms available for different types of entries.
- Insert links to other entries, in the same or other "Configuration" of Elog, e.g. Operations Elog link to data in Diagnostics Elog.
- Control for editing existing entries, and maintaining revisions
- Quick Entry – from any page, and through the standard navigation menu, provide a means to make a very quick crisis entry.

Retrieval:
- Provide a chronological view of all entries.
- Provide a Threaded discussion view of entries, and showing where referenced.
- Sort and display entries by Category/Sub-Category, or type of entry, or both.
- Search by any combination of Keyword, Dates, Author, Category/Sub-Category, etc.
- When viewing multiple entries (search result, threaded view, etc.) provide a choice to either showing a thumbnail view (fixed height) of an image or entire image in the entry
- Default to search user-defined Elog Configuration first, but also provide the ability to select a search of all Configurations
- Oracle Intermedia to search attachments such as pdf, Word documents.
- On every page, provide a standard navigation menu.

Output:
- Email capability – send out email to selected groups when posting an entry – manual (human initiated) only, no automatically generated emails.
- Email subscription – receive emails when a sub-entry is made to a subscribed entry.